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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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EXAMINER	
DELCOTTO, GREGORY R	
ART UNIT	**PAPER NUMBER**
1751	

DATE MAILED: 02/09/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/935,897	EVANS ET AL.	
	Examiner	Art Unit	
	Gregory R. Del Cotto	1751	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *14 November 2005*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *22-30* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *22-30* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

1. Claims 1-30 are pending. Applicant's arguments and amendments filed 11/14/05 have been entered. Note that, it is not clear why Applicant has stated that claims 24, 28, and 29 are withdrawn from consideration since the Examiner stated in the last Office action mailed 8/11/05 that claims 22-29 were under examination. Consistent with the Examiner's position in the Office action mailed 8/11/05, claims 24, 28, and 29 are under examination and not withdrawn from consideration.

Claims 1-21 are withdrawn from further consideration pursuant to 37 CFR 1.142(b) as being drawn to a nonelected invention, there being no allowable generic or linking claim. Election was made **without** traverse in the reply filed on 8/16/04.

Objections/Rejections Withdrawn

The following objections/rejection(s) as set forth in the Office action mailed 8/11/05 have been withdrawn:

The previous rejection of claims 22-29 under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement has been withdrawn.

The rejection of claims 22, 23, 25, and 26 under 35 U.S.C. 102(b) as anticipated by WO 89/09806 has been withdrawn.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

> The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 22-30 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention.

With respect to claim 22, the specification as originally filed, provides no basis for "that is at least between about one percent by weight and less than 30% by weight of the sum of the weight of the ethylene glycol fraction and the weight of the second glycol" as recited by instant claim 22. Additionally, the specification, as originally filed, provides no basis for "at least 10,000 mg/kg" as recited by instant clams. While the specification provides basis for 10,000 mg/kg, it does not provide basis for at least 10,000 mg/kg which has no upper limit. This is deemed new matter.

With respect to instant claim 30, the specification as originally filed, provides no basis for "wherein the aqueous fluid containing ethylene glycol and the second glycol comprises more than 10 percent by weight water". Thus, this is deemed new matter.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains.

Patentability shall not be negatived by the manner in which the invention was made.

The factual inquiries set forth in *Graham* **v.** *John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 22-29 are rejected under 35 U.S.C. 103(a) as being unpatentable over WO 89/09806.

'806 teaches a coolant composition containing an alkylene glycol such as propylene glycol, a corrosion inhibitor combination of an azole such as tolyltriazole, a molybdate salt and phosphoric acid, and less than 10% by weight water. See Abstract. The composition contains at least 90 weight percent of an alkylene glycol or a mixture of two or more alkylene glycols and a corrosion inhibiting amount of an inhibitor. See page

3, lines 1-15. Suitable alkylene glycols include ethylene glycol, propylene glycol, glycerol, and mixtures thereof. Mixture of two or more glycols are suitable in any proportion. See page 3, line 30 to page 4, line 12.

Specifically, '806 teaches a coolant composition containing 30 parts propylene glycol, 70 parts ethylene glycol, 1 part water, 0.25 parts azole, 0.15 parts molybdate, and 0.075 parts phosphoric acid. See page 9. Note that, the Examiner asserts that the composition as specifically taught by '806 would inherently have the same reduced oral toxicity as recited by the instant claims because it teaches mixtures containing ethylene glycol and propylene glycol in the same proportions as recited by the instant claims.

'806 does not teach, with sufficient specificity, a method of reducing the oral toxicity of aqueous fluids containing ethylene glycol by mixing with ethylene glycol a specific diol in the specific proportions as recited by the instant claims.

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to reduce the oral toxicity of aqueous fluids containing ethylene glycol by mixing with ethylene glycol a specific diol in the specific proportions as recited by the instant claims, with a reasonable expectation of success, because the teaching of '806 suggest reducing the oral toxicity of aqueous fluids containing ethylene glycol by mixing with ethylene glycol a specific diol in the specific proportions as recited by the instant claims.

Claims 22, 23, 25-27, and 30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Meyer et al (US 5,118,434) or Maes et al (US 5,366,651).

Meyer et al teach antifreeze fluids containing 50 to 99 percent by weight of one or more glyos, 0.001 to 15 percent by weight of one or more corrosion inhibitors, 25 to 2500 arts of a polymeric additive, and optionally, up to 50 percent by weight of water. See column 1, line 50 to column 2, line 5. Suitable glycols include ethylene glycol, propylene glycol, etc. See column 2, lines 40-60.

Maes et al teach antifreeze concentrates containing a water-soluble liquid alcohol freezing point depressant and a corrosion inhibitor comprising carboxylic acids or their salts and a triazole compound. See column 2, lines 55-69. Suitable freeze point depressants include glycols such as ethylene glycol, propylene glycols, etc. The composition contains from 10 to 90% by weight water and 25% to 50% by weight of a water-soluble liquid alcohol freezing point depressant. See column 3, line 65 to column 4,line 20.

Note that, the Examiner asserts that the broad teachings of Meyer et al or Maes et al would suggest compositions having reduced toxicity because Meyer et al or Maes et al suggest compositions containing the same components in the same proportions as recited by the instant claims.

Meyer et al or Maes et al do not teach, with sufficient specificity, a method of reducing the oral toxicity of aqueous fluids containing ethylene glycol by mixing with ethylene glycol a specific diol such as propylene glycol in the specific proportions as recited by the instant claims.

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to reduce the oral toxicity of aqueous fluids containing ethylene

glycol by mixing with ethylene glycol a specific diol such as propylene glycol in the specific proportions as recited by the instant claims, with a reasonable expectation of success, because the teaching of Meyer et al or Maes et al suggest reducing the oral toxicity of aqueous fluids containing ethylene glycol by mixing with ethylene glycol a specific diol such as propylene glycol in the specific proportions as recited by the instant claims.

Claims 22-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Hansen (US 4,728,452) or Wood (US 4,455,248).

Hansen teaches a coolant concentrate comprising water, at least 10% by weight of a water soluble nitrite, 0.2 to 2% by weight of at least one water soluble azole, and 0.1 to 1% by weight of a water soluble molybdate. See abstract. The coolant concentrate may be totally aqueous or may contain freezing point depressing amounts of at least one alcohol, at least one glycol, or mixtures of one or more alcohol and glycol. The alcohol, glycol or alcohol-glycol mixture may comprise about 20% to 90% by weight of the aqueous concentrate. Suitable glycols include ethylene glycol, propylene glycol, glycerol, etc. See column 3, lines 25-50.

Wood teaches a single-phase glycol based antifreeze composition containing one or more glycols selected from the group consisting of ethylene glycol, propylene glycol, glycerol, etc., and additionally comprising for every 100 parts by weight of said alcohol, 0.1 to 500 parts by weight water, 0.05 to 0.3 parts by weight of sodium metasilicate, from 1.2 to 4.0 parts by weight of a phosphate of potassium, from 0.15 to 0.5 parts of sodium metaborate, etc. See column 2, lines 25-45.

Note that, the Examiner asserts that the broad teachings of Hansen or Wood would suggest compositions having reduced toxicity because Hansen or Wood suggest compositions containing the same components in the same proportions as recited by the instant claims.

Hansen or Wood do not teach, with sufficient specificity, a method of reducing the oral toxicity of aqueous fluids containing ethylene glycol by mixing with ethylene glycol a specific diol such as propylene glycol in the specific proportions as recited by the instant claims.

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to reduce the oral toxicity of aqueous fluids containing ethylene glycol by mixing with ethylene glycol a specific diol such as propylene glycol in the specific proportions as recited by the instant claims, with a reasonable expectation of success, because the teachings of Hansen or Wood suggest reducing the oral toxicity of aqueous fluids containing ethylene glycol by mixing with ethylene glycol a specific diol such as propylene glycol in the specific proportions as recited by the instant claims.

Double Patenting

The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970);and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 22, 23, and 25-27 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-10 of 10/347900, claims 27-50 of 10/910497 and claims 30-33 of 10/935982. Note that with respect to claims 1-10 of 10/347900, claims 27-50 of 10/910497 and claims 30-33 of 10/935982, although these claims recite "non-aqueous", the term "non-aqueous" as defined in the specifications of these applications allows for the presence of some water which would fall within the normal meaning of "aqueous" as recited by the instant claims. Although the conflicting claims are not identical, they are not patentably distinct from each other because claims 1-10 of 10/347900, claims 27-50 of 09/910497 and claims 30-33 of 10/935982 encompass the material limitations of the instant claims.

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to reduce the oral toxicity of aqueous fluids containing ethylene glycol by mixing with ethylene glycol a specific diol such as propylene glycol in the specific proportions as recited by the instant claims, with a reasonable expectation of success, because claims 1-10 of 10/347900, claims 27-50 of 09/910497 and claims 30-33 of 10/935982 suggest reducing the oral toxicity of aqueous fluids containing ethylene glycol by mixing with ethylene glycol a specific diol such as propylene glycol in the specific proportions as recited by the instant claims.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Claims 22, 23, 25-27, and 30 are provisionally rejected on the ground of nonstatutory obviousness-type double patenting as being unpatentable over claims 1-11 of copending Application No. 10/264041. Although the conflicting claims are not identical, they are not patentably distinct from each other because claims 1-11 of 10/264041 encompass the material limitations of the instant claims.

It would have been obvious to one of ordinary skill in the art, at the time the invention was made, to reduce the oral toxicity of aqueous fluids containing ethylene glycol by mixing with ethylene glycol a specific diol such as propylene glycol in the specific proportions as recited by the instant claims, with a reasonable expectation of success, because claims 1-11 of copending Application No. 10/264041suggest reducing the oral toxicity of aqueous fluids containing ethylene glycol by mixing with ethylene glycol a specific diol such as propylene glycol in the specific proportions as recited by the instant claims.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Response to Arguments

With respect to '806, Maes et al, Meyer et al, Hansen, or Wood, Applicant states none of these references describe a method for reducing the oral toxicity of an ethylene glycol based heat transfer fluid by adding a second glycol as recited by the instant claims and none of these references teach combining ethylene glycol and a second glycol in the specific proportions as recited by the instant claims. Additionally, Applicant

states that it is a mere possibility that the compositions as taught by '806, Maes et al, Meyer et al, Hansen, or Wood might have reduced toxicity as recited by the instant claims. In response, note that, the Examiner asserts that '806, Maes et al, Meyer et al, Wood,or Hansen clearly suggest compositions having the same reduced toxicity as the recited by the instant claims because '806, Maes et al, Meyer et al, Wood, or Hansen suggest compositions containing the same components in the same proportions as recited by the instant claims. The teachings of '806, Maes et al, Meyer et al, Wood, or Hansen suggest varying amounts of glycol ethers which would suggest to one of ordinary skill in the art to formulate a composition containing the same proportion of ethylene glycol and second glycol as recited by the instant claims. Additionally, although '806, Maes et al, Meyer et al, Wood, or Hansen do not make specific mention of reduced toxicity properties, the Examiner asserts, once again that the reason or motivation to modify the reference may often suggest what the inventor has done, but for a different purpose or to solve a different problem. It is not necessary that the prior art suggest the combination to achieve the same advantage or result discovered by applicant. See MPEP 2144; In re Linter, 458 F.2d 1013, 173 USPQ 560 (CCPA 1972).

Furthermore, Applicant has reiterated that on pages 17-21 of the specification, unexpected and superior results of the claimed invention are shown with respect to toxicity. The Examiner asserts, as stated previously, that this data is insufficient to overcome the prior art rejections applied above. It is unclear to the Examiner exactly what unexpected results are being shown; it seems that one of ordinary skill in the art would reasonable expect that the toxicity of ethylene glycol would be reduced when

combined with propylene glycol since propylene glycol is much less toxic than ethylene glycol. Thus, the data does not appear to show any unexpected and superior results but just merely shows what would be expected.

With respect to the provisional obviousness-type double patenting rejections, the Examiner asserts that claims 1-11 of copending Application No. 10/264041, claims 1-10 of 10/347900, claims 27-50 of 09/910497 and claims 30-33 of 10/935982 suggest all the material limitations of the instant claims. Additionally, note that, a complete, full Office action includes all applicable rejections including provisional obviousness-type double patenting rejections.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Gregory R. Del Cotto whose telephone number is (571)

272-1312. The examiner can normally be reached on Mon. thru Fri. from 8:30 AM to 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Yogendra Gupta can be reached on (571) 272-1316. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Gregory R. Del Cotto
Primary Examiner
Art Unit 1751

GRD
January 23, 2006